

VERSION SHOWING MARKED CHANGES

IN THE CLAIMS:

1. Canceled.

2. Canceled.

~~3.~~ (Amended) A compound comprising a metal complexed with a chelating group attached to a gastrin releasing peptide (GRP) receptor agonist, the gastrin releasing peptide receptor agonist including a bombesin agonist binding moiety, said compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety ~~The compound of claim 2 wherein and~~ Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

~~4.~~ (Amended) The compound of claim ~~2~~ ~~2~~ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~5.~~ (Original) The compound of claim ~~4~~ ~~4~~ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~6.~~ (Original) The compound of claim ~~4~~ ~~4~~ wherein X is DOTA or a derivative thereof.

~~5~~ (Original) The compound of claim ~~6~~ ~~4~~ wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~6~~ (Original) The compound of claim ~~7~~ ~~7~~ wherein Y is a combination of L-glutamine and a hydrocarbon chain.

~~7~~ (Original) The compound of claim ~~8~~ ~~8~~ wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain.

~~8~~ (Original) The compound of claim ~~9~~ ~~9~~ wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutyric acid, 5-aminovaleric acid (5-

Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminoctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

9¹¹. (Original) The compound of claim ⁷¹⁴ wherein X is N3S or a derivative thereof.

10¹². (Original) The compound of claim ¹¹¹⁴ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

11¹³. (Original) The compound of claim ¹⁰¹² wherein Y is gly-ser-gly.

14. Canceled.

15. (Amended) A complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide (GRP) receptor agonist, the GRP receptor agonist including a bombesin agonist moiety ~~The complex of claim 14 wherein and the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α-, β- or γ-emitting isotopes.~~

16¹⁶. (Amended) The complex of claim ¹⁴¹⁵ wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

17¹⁷. (Original) The complex of claim ¹⁶¹⁸ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

18¹⁸. (Original) The complex of claim ¹⁷¹⁹ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

19¹⁹. (Original) The complex of claim ¹⁸²⁰ wherein X is DOTA or a derivative thereof.

20²⁰. (Original) The complex of claim ¹⁹²¹ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

21²¹. (Original) The complex of claim ²⁰²² wherein Y is a combination of L-glutamine and a hydrocarbon chain.

19 22. (Original) The complex of claim 21 wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain. 19

20 23. (Original) The complex of claim 22 wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminoctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun). 20

21 24. (Original) The complex of claim 23 wherein Y is 8-aminoctanoic acid. 20

22 25. (Original) The complex of claim 23 consisting of 90Y-DOTA-8-Aoc-BBN(7-14)NH2. 20

23 26. (Original) The complex of claim 23 consisting of 111In-DOTA-8-Aoc-BBN(7-14) NH2. 20

24 27. (Original) The complex of claim 23 consisting of 177Lu-DOTA-8-Aoc-BBN(7-14) NH2. 20

25 28. (Original) The complex of claim 23 consisting of 149Pm-DOTA-8-Aoc-BBN(7-14) NH2. 20

26 29. (Original) The complex of claim 23 consisting of 90Y-DOTA-5-Ava-BBN(7-14)NH2. 20

27 30. (Original) The complex of claim 23 consisting of 111In-DOTA-5-Ava-BBN(7-14) NH2. 20

28 31. (Original) The complex of claim 23 consisting of 177Lu-DOTA-5-Ava-BBN(7-14) NH2. 20

29 32. (Original) The complex of claim 23 consisting of 149Pm-DOTA-5-Ava-BBN(7-14) NH2. 20

30 33. (Original) The complex of claim 16 wherein X is N3S or a derivative thereof. 20

31 34. (Original) The complex of claim 33 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14). 30

32 35. (Original) The complex of claim 34 wherein Y is gly-ser-gly. 31

33 36. (Original) The complex of claim 34 consisting of 99mTc-N3S-gly-ser-gly-BBN(7-14)NH2. 31

37. Canceled.

~~38.~~ (Amended) A method of treating patients using radioisotope therapy by administering an effective amount of a pharmaceutical comprising a metal complex with a chelating group with a GRP receptor agonist, the GRP receptor agonist including a bombesin agonist moiety ~~The method according to claim 37, wherein said method includes administering an effective amount of a~~ the complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

~~39.~~ (Original) The method of claim ~~38~~ ³⁴ wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~36.~~ (Original) The method of claim ~~38~~ ³⁴ wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

~~31.~~ (Original) The method of claim ~~38~~ ³⁴ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~38.~~ (Original) The method of claim ~~34~~ ³⁷ wherein X is DOTA or a derivative thereof.

~~39.~~ (Original) The method of claim ~~32~~ ³⁸ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~44.~~ (Original) The method of claim ~~32~~ ³⁹ wherein Y is a combination of L-glutamine and a hydrocarbon chain.

~~45.~~ (Original) The method of claim ~~44~~ ⁴⁰ wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminoctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

~~46.~~ (Original) A method of imaging a patient by administering to a subject a diagnostically effective amount of a compound as set forth in claim ¹⁸ ~~17~~.

~~43~~ 47. (Original) The method of claim ~~46~~ ⁴², wherein said method includes administering an effective amount of a complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

~~44~~ 48. (Original) The method of claim ~~47~~ ⁴³ wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~45~~ 49. (Original) The method of claim ~~48~~ ⁴⁴ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~46~~ 50. (Original) The method of claim ~~49~~ ⁴⁵ wherein X is N3S or a derivative thereof.

~~47~~ 51. (Original) The method of claim ~~50~~ ⁴⁶ wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~48~~ 52. (Original) The method of claim ~~51~~ ⁴⁷ wherein Y is gly-ser-gly.

~~49~~ 53. (Previously Amended) A method of forming a therapeutic or diagnostic compound comprising the step of reacting a metal complexed with a chelating group with a GRP receptor agonist the receptor agonist including a bombesin agonist moiety.

~~50~~ 54. (Original) The method of claim ~~53~~ ⁴⁹, wherein said method includes reacting a metal with a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

~~51~~ 55. (Original) The method of claim ~~54~~ ⁵⁰ wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~52~~ 56. (Original) The method of claim ~~54~~ ⁵⁰ wherein the metal is selected from the group consisting of: 99mTc- and 186/188Re-.

53. (Original) The method of claim ⁵² ~~58~~ wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

54. (Original) The method of claim ⁵² ~~57~~ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

55. (Original) The method of claim ⁵⁴ ~~58~~ wherein B is selected from the group consisting of BBN(7-14) and BBN(8-14).

56. (Original) The method of claim ⁵⁵ ~~59~~ wherein X is DOTA or a derivative thereof and Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminoctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

57. (Original) The method of claim ⁵⁵ ~~59~~ wherein X is N3S or a derivative thereof and Y is gly-ser-gly.